

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A stator for an electric motor, comprising:
 - a) a radial array of $2N$ substantially identical teeth, definable as 1, 2, 3, to $2N$;
 - b) N coils, one wound around each even tooth; and
 - c) no coil wound around any odd tooth.

2. (Currently amended) A stator for an electric motor, comprising:
 - a) a first group of stator teeth, each
 - i) acting as magnetic core for a single coil wound around it; and
 - ii) carrying substantially all magnetic flux of the coil wound around it;
 - b) a second group of stator teeth, identical in structure to the first group, having no coils wound around them.

3. (Currently amended) ~~Stator~~ The stator according to claim 2, wherein slots are present between adjacent teeth, and some slots contain no coils.

4. (Currently amended) A stator for an electric motor, comprising:
 - a) a radial array of stator teeth, separated by stator slots; and

b) phase coils encircling at least some stator teeth, wherein no slot contains coils from more than one phase, and any slot containing a coil is substantially fully occupied by said coil.

5. (Currently amended) ~~Stator~~ The stator according to claim 4, wherein the radial array of stator teeth comprises at least two teeth.

6. (Currently amended) ~~Apparatus~~ An apparatus, comprising:
a) a stator for an electric motor, comprising coil slots; and
b) in any slot, no coils from more than a single phase, and full occupancy of the slot by the coil.

7. (Currently amended) ~~Apparatus~~ An apparatus, comprising:
a) a stator for an electric motor, comprising coil slots;
b) a rotor;
c) coils in respective slots, which fully occupy the respective slots,
wherein all currents in any slot are in-phase.

8. (Currently amended) ~~Apparatus~~ The Apparatus according to claim 7, wherein no currents in any slot have different phases.

9. (Currently amended) ~~Apparatus~~ The apparatus according to claim 1, and further comprising a motor vehicle which powers the motor.

10. (Currently amended) ~~Apparatus~~ The apparatus according to claim 5, and further comprising a motor vehicle which powers the motor.

11. (Currently amended) ~~Apparatus~~ The apparatus according to claim 7, and further comprising a motor vehicle which powers the motor.

12. (Currently amended) A stator for an electric motor, comprising:

- a) an outer rim;
- b) stator teeth extending radially inward from the rim;
- c) breaks in the stator, which allow
 - i) any selected individual stator ~~teeth~~ tooth to be removed from the stator; and
 - ii) a pre-formed coil to be mounted onto the selected stator ~~teeth~~ tooth.

13. (Currently amended) A stator for an electric motor, comprising:

- a) a radial array of stator teeth, with a stator slot present between adjacent pairs of teeth;
- b) a rim surrounding the teeth; and
- c) breaks in the rim, teeth, or both, which allow
 - i) any selected individual teeth to be separated from the stator and
 - ii) a pre-formed coil to be inserted onto selected individual teeth.

14. (Currently amended) ~~Stator~~ The stator according to claim 13, wherein structural configuration of the removed stator teeth does not require deformation of the pre-formed coil during mounting.

15. (Currently amended) ~~Stator~~ The stator according to claim 13, wherein structural configuration of the removed stator teeth does not require deformation of the pre-formed coil during insertion.

16. (Original) A collection of parts for constructing a stator for an electric motor, comprising:

- a) a plurality of pre-formed coils;
- b) a first set of stator teeth having radially outer ends which fit into the pre-formed coils; and
- c) a second set of stator teeth, each having a segment of a rim mounted thereon.

17. (Currently amended) ~~Collection~~ The collection of parts according to claim 16, wherein a radial array of stator teeth connected to an outer rim is generated when

- i) the first set of stator teeth is positioned in odd-numbered sectors of a circle, and
- ii) the second set of stator teeth is positioned in even-numbered sectors of the circle.

18. (Currently amended) ~~Collection~~ The collection of parts according to claim 17, wherein the segments of the rim collectively form a circular periphery of the stator.

19. (Currently amended) ~~Collection~~ The collection of parts according to claim 17, wherein the segments of the rim, together with radially outer sections of stator teeth in the first set, collectively form a circular periphery of the stator.

20. (Currently amended) A stator for an electric motor, comprising:
- a) a radial array of stator teeth, extending inwardly from a circumferential rim;
 - b) breaks in the rim, teeth, or both, which allow
 - i) any selected individual teeth to be separated from the stator and
 - ii) a pre-formed coil to be inserted onto selected individual teeth.

21. (Currently amended) ~~Stator~~ The stator according to claim 20, wherein parts of the rim are connected to some teeth when removed, preventing insertion of pre-formed coils onto such teeth.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

Serial No.: 10/773,967
Response to Office Action of 10/25/2005
Art Unit 2834
VAL 183 P2

25. - 30 (Withdrawn)

31. (Currently amended) ~~Apparatus~~ The apparatus according to claim 1,
wherein the coils provide multiple phases.

32. - 37. (Withdrawn)